Agropyron cristatum - (Pascopyrum smithii, Stipa comata) Semi-natural Herbaceous Vegetation

COMMON NAME	Crested Wheatgrass - (Western Wheatgrass, Needle-and-Thread Grass) Semi-natural Herbaceous Vegetation
SYNONYM	Crested Wheatgrass Semi-natural Grassland
PHYSIOGNOMIC CLASS	Herbaceous Vegetation (V)
PHYSIOGNOMIC SUBCLASS	Perennial graminoid vegetation (V.A)
PHYSIOGNOMIC GROUP	Temperate or subpolar grassland (V.A.5)
PHYSIOGNOMIC SUBGROUP	Natural/Semi-natural (V.A.5.N)
FORMATION	Medium-tall bunch temperate or subpolar grassland (V.A.5.N.d)
ALLIANCE	AGROPYRON CRISTATUM SEMI-NATURAL HERBACEOUS ALLIANCE

CLASSIFICATION CONFIDENCE LEVEL 3

USFWS WETLAND SYSTEM Terrestrial

RANGE

Badlands National Park

Introduced, exotic grasslands occur throughout the Park and are associated with disturbances such as roadsides, abandoned farm fields, and areas that were interseeded with exotic grasses to "improve" the range for grazing. Areas especially noted are adjacent to the Park access road and facilities, abandoned agricultural fields along the northern boundary, abandoned agricultural fields on Sheep Mountain Table, and interseeded grasslands on Cuny and Stronghold Tables.

Globally

This type occurs most commonly in the northern Great Plains of the United States and Canada.

ENVIRONMENTAL DESCRIPTION

Badlands National Park

Introduced grasslands are on relatively level sites accessible to farming equipment. Typically the soils are silt and/or clay loams, which historically supported western wheatgrass (*Pascopyrum smithii*) alliance grasslands.

Globally

This type can occur in a wide variety of human-disturbed habitats, including highway rights-of-way, jeep trails, etc. It is also widely planted to revegetate pastures and rangelands.

MOST ABUNDANT SPECIES

Badlands National Park

Stratum	Species
Herbaceous	*Agropyron cristatum*

Globally

Stratum	Species
Graminoid	*Agropyron cristatum*

CHARACTERISTIC SPECIES

Badlands National Park

Agropyron cristatum, *Pascopyrum smithii*, *Bromus japonicus*, *Psoralidium tenuiflorum*

Globally

Agropyron cristatum, Pascopyrum smithii

OTHER NOTABLE SPECIES

VEGETATION DESCRIPTION

Badlands National Park

Stands typically have moderate herbaceous cover, ranging from 40-90%, and very dense litter over the ground surface. A few abandoned agricultural fields are dominated by crested wheatgrass (*Agropyron cristatum*), often with a host of invasive species, particularly Japanese brome (*Bromus japonicus*), field bindweed (*Convolvulus arvensis*), and common mullein (*Verbascum thapsus*). Many species of forbs and occasional shrubs are also found in the type.

Globally

The vegetation is dominated by medium-tall (0.5 - 1 m) graminoids. The dominant grass is *Agropyron cristatum*, a naturalized species from Europe. Other weedy species may occur as well, but native species are generally less than 10% cover. Native species may include mixed-grass prairie grasses, such as *Pascopyrum smithii* and *Stipa comata*, as well as others.

CONSERVATION RANK GW. This is a naturalized type from Europe, widely planted to revegetate roadsides and pastures.

DATABASE CODE CEGL005266

MAP UNITS The crested wheatgrass grassland type is mapped as part of the Introduced Grassland unit, Map Class 17 on the Badlands NP vegetation map.

SIMILAR ASSOCIATIONS

COMMENTS

Badlands National Park

The introduced grassland group occupies previously disturbed sites, including roadsides, abandoned agricultural fields, and interseeded rangeland. Stands dominated by the bunchgrass, crested wheatgrass (*Agropyron cristatum*), are more diverse than those of Kentucky bluegrass or smooth brome. One introduced grassland site was observed where prairie dogs had invaded, and through grazing and burrow construction activities were instrumental in reclaiming some of the introduced grassland back to western wheatgrass and blue grama grasslands. Present management of exotic grasses consists of limited mowing and light grazing by bison in the North Unit and heavy grazing by livestock in the South Unit.

Several introduced grassland sites were visited, and the group was well-surveyed into its components during preparation of the vegetation map.

Some smaller areas of annual, exotic vegetation were also encountered during field data collection in support of vegetation map production. These patches of vegetation typically grew around livestock watering areas, such as windmills, and generally were placed under land use Map Class 55, Other Agricultural Land.

Globally

Hansen and Hoffman (1988, p 6, Fig. 6) show a seral stand of *Agropyron cristatum*, with signs of succession leading to the *Stipa comata* / *Carex filifolia* habitat type.

REFERENCES

Hansen, P.L. and G.R. Hoffman. 1988. The vegetation of the Grand River/Cedar River, Sioux, and Ashland Districts of the Custer National Forest: a habitat type classification. USDA Forest Service General Technical Report RM-157, Rocky Mountain Forest and Range Experiment Station, Fort Collins, CO.